

Chapter 3

TRANSPORTATION SYSTEMS

A. Beaufort Sea-Mackenzie Delta Region

... I want to emphasize that we see both systems as being viable transportation alternatives. There are advantages and disadvantages to both, but we see that the two can be used in order to transport oil from the Beaufort Region. (Mr. G. Bezaire, Esso, Issue 17:24, 16-2-1982)

The consortium of companies operating in the Beaufort Sea-Mackenzie Delta Region considers that either tankers or overland pipelines or a combination of both are technically and environmentally feasible to bring hydrocarbons to market. Under appropriate circumstances, both systems are economically viable.

A number of factors will influence the choice of a transportation system by the operators in the Beaufort Sea Region. These relate principally to project economics, markets, safety and reliability, and the need for mitigative measures to protect the environment. Obviously the extent and location of reserves will play a major role in determining the choice of transportation system.

The threshold level of oil reserves for a commercially feasible, marine-based operation with two tankers operating has been estimated by Dome at 112 million cubic metres (700 million barrels) with a production rate of 16,000 cubic metres (100,000 barrels) of oil per day. The economics of a pipeline transportation system in the North, the Committee was told by Dome, requires as a minimum some 385 million cubic metres (2.5 billion barrels) of proven recoverable reserves and a production rate of 56,000 cubic metres (350,000 barrels) of oil daily. As far as the Beaufort Sea Region is concerned, Dome claims that the higher level of reserves required for a pipeline will not be achieved until 1990. Even according to the projected intermediate production schedule, the level of output will only have reached 48,000 cubic metres (300,000 barrels) a day in 1990. As mentioned, Dome advocates a tanker system operational by 1987, at a time when the company claims that Canada's oil deficit will be greatest.